

BASKAKOV, A.P.; ZUBOV, V.Ya.; GRACHEV, S.V.; VERSHININA, V.S.

Patenting wire in a fluidized bed. Stal' 24 no.7:560-663 J1 '64.
(MIRA 18:1)

BASKAKOV, A. P.; VERSHININA, V. S.; LUMMI, A. P.; PAKHAIYEV, V. M.

"Heat transfer and vertical heat conductivity of a packing fluidized bed
of fine-grained material."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minak, 4-12
May 1964.

Ural' Branch, AS USSR.

YERGALIYEV, A.Ye.; YURKOV, V.N.; ABEDIMOV, A.Zh.; ZAVARZIN, V.G.; VERSHININA, V.V.

Study of the electrochemical method of fastening loams and clays.
Trudy Alt. GMIIN AN Kazakh. SSR 15:48-52 '63. (MIRA 17:3)

VERSHININA, V. V., inzh.

Using slate in making agloporite on conveying screens. Stroi.
mat. 5 no.7:21-22 J1 '59. (MIRA 12:10)
(Slate) (Building materials)

S/081/62/000/016/021/043
B168/B186

AUTHORS: Vershinina, V. V., Shlapak, G. A.

TITLE: Testing a technique for producing a porous clay filler from slates at an industrial testing plant

PERIODICAL: Referativnyy zhurnal, Khimiya, no. 16, 1962, 379, abstract 16K384 (Tr. Altaysk. gornometallurg. n.-i. in-ta, v. XI, 1961, 130-134)

TEXT: A technique was worked out for producing a porous clay filler from the carbonaceous clay slates of Eastern Kazakhstan at an industrial testing plant (diagram). Tests were carried out on slates from seven deposits with the following chemical composition (in %): SiO_2 57.62-63.60, Al_2O_3 13.9-21.48, Fe_2O_3 3.19-7.66, CaO 1.00-5.20, MgO 1.54-4.40, R_2O 3.00-5.00, H_2O 0.35-0.66, calcining losses 3.20-7.58. The swelling temperature of the slates ranged from 1150 to 1190°C. The porous clay filler was produced with an apparent density of 0.4-0.7 g/cm³, which

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Testing a technique for producing...

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corresponds to a swelling coefficient of 7-3. Optimum parameters for the swelling process were found for slates from various deposits. Concretes with a filler of the tested slates have a compressive strength of 50-70 kg/cm² at a density of 1000-1250 kg/m³. [Abstracter's note: Complete translation.]

✓

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LOKSHA, B.K.; VERSHININA, V.V.

Electric viscosimeter with a noncontracting a.c. motor. Zav.
lab. 30 no. 6:757-758 '64 (MIR 17:8)

1. Gorno-metallurgicheskiy nauchno-issledovatel'skiy institut
AN Kazakhskoy SSR.

VERSHININA, V.V.; GOLOSHCHAPOV, B.A.

Investigating mortars of Semipalatinsk portland cement and Kuznetsk
slag portland cement. Trudy Alt. GMNII AN Kazakh. SSR 14:165-170
'63. (MIRA 16:9)
(Slag cement) (Portland cement)

VERSHININA, V.V.

Thermographic curves of East Kazakhstan shales. Trudy Alt. GINII AN
Kazakh. SSR 14:160-164 '63. (MIRA 16:9)
(East Kazakhstan—Shale) (Thermal analysis)

VERSHININA, V.V.

Effect of the heat treatment of shale on the quality of a lightweight
filler. Trudy. Alt. GMNII AN Kazakh. SSR 14:171-177 '63.

(MIRA 16:9)

(Shale) (Keramzit)

PLATONOV, G.F.; ABDEYEV, M.A.; BUTENKO, N.S.; SIZOV, Yu.M.; VERSHIKINA, V.V.;
MIKHAYLOV, N.I.; SIDORENKO, T.A.; DYUYSEKIN, Ye.K.; PRIBETOV, M.D.;
KUZHAKHMETOV, E.I.; GANCHENKO, V.M.; SHISHKIN, V.I.; CHIRKOVA, N.P.;
IL'INA, I.I.; BERDUS, Yu.M.

Two-stage method of treating slag and sinter cake in electric furnaces.
Trudy Alt. GMNII AN Kazakh. SSR L:4-13 '63. (MIRA 16:9)
(Nonferrous metals--Electrometallurgy)

VERSHININA, V.V.

Effect of growth promoting substances and microelements on the
yield of broad beans. Biul. Glav. bot. sada. no.49:107-111 '63.
(MIRA 16:8)

1. Botanicheskiy sad imeni prof. B.M. Kozo-Polyanskogo
Voronezhskogo gosudarstvennogo universiteta.
(Broad bean) (Plants, Effect of trace elements on)
(Growth promoting substances)

DAVYDOV, V.I.; VERSHININA, V.V.

Determination of the weight of the fetus before labor by
Z.P. Iakubova's method. Kaz. med. zhur. no.1:38-40 Ja-F'63.
(MIRA 16:8)
1. Kafedra akusherstva i ginekologii lechebnogo fakul'teta
(ispolnyayushchiy obyazannosti zaveduyushchego - dotsent
V.I. Davyдов) Sverdlovskogo meditsinskogo instituta.
(OBSTETRICS)

VERSHININA, V.V.; YURKOV, V.N.

Slags of nonferrous metallurgy as material for the manufacture
of mine supports. Trudy Alt. GMNII AN Kazakh. SSR 15:53-59 '63.
(MIRA 17:3)

VERSHININA, V.V., kand.tekhn.nauk

Carbonaceous and argillaceous shales of eastern Kazakhstan as a
high-grade source for the production of lightweight building materials.
Vest.AN Kazakh.SSR 17 no.4:8-13 no.4:8-13 Ap '61. (MIRA 14:5)
(Kazakhstan—Shale)

VERSHININA, V.V.; ADEYEV, M.A.; BUTENKO, N.S.

Thermal characteristics of Nikolayevka deposit ores. Trudy Alt.
GMNII AN Kazakh.SSR 11:82-92 '61. (MIRA 44:8)
(Nikolayefka (Altai Territory)--Ore deposits)
(Thermal analysis)

VERSHININA, V.V.

Effect of various reducing agents on the bloating process of
clayey soil of East Kazakhstan. Trudy Alt. GMNII AN Kazakh.SSR
11:119-124 '61.

(MIRA 14:8)

(East Kazakhstan Province--Clay)
(Keramzit)

VERSHININA, V.V.

Expansion theory of volcanic glass. Trudy Alt.GNMII AN Kazakh.
SSR 11:125-129 '61. (MIRA 14:8)
(Glass manufacture)

VERSHININA, V.V.; SHIAPAK, G.A.

Experimental and industrial testing of the keramzit manufacturing process from shale. Trudy Alt. GMNII AN Kazakh.SSR 11:130-134 '61.

(Keramzit) (Shale)

(MIRA 14:8)

VERSHININA, V.V.

Lime-slag binder made of waste zinc slags. Trudy Alt.GMII AN
Kazakh.SSR 11:135-140 '61. (MIRA 14:8)
(Slag) (Binding materials)

VERSHININA, V.V.

Heat insulating slag wool obtained during the electric smelting of
semifinished products of the lead and zinc industries. Trudy Alt.
GMNII AN Kazak'. SSR 14:141-149 '63. (MIRA 16:9)
(Mineral wool) (Nonferrous metal industries—By-products)

VERSHINIHA, V.V.; FEDOTOVA, I.I.

Local binding materials and slag portland cement from slags obtained during the electric smelting of the semifinished products of the lead and zinc industries. Trudy Alt. GMNII AN Kazakh. SSR 14:150-159 '63. (MIRA 16:9)

(Binding materials) (Slag cement) (Nonferrous metal industries--By-products)

VERSHININA, V. V., Cand Tech Sci -- (diss) "Study of viscosity and electrical conductivity of slags in lead electrosmelting." Alma-Ata, 1960. 12 pp; with schematics; (Ministry of Higher Education USSR, Kazakh Mining Metallurgy Inst); 150 copies; price not given; (KL, 28-60, 160)

Vershinina, V.V.

137-1958-2-2349

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 2, p 21 (USSR)

AUTHOR: Vershinina, V.V.

TITLE: The Electrical Conductivity of Slags in the Electro-smelting of Lead Agglomerates (Elektroprovodnost' shlakov elektroplavki svintsovyykh aglomeratov)

PERIODICAL: Tr. Altaysk. gornometallurg. n.-i. in-ta, 1957, Vol 4, pp 89-95

ABSTRACT: A Kohlrausch universal bridge was used to measure the electrical conductivity of the slags. One of the electrodes was a crucible of soft Fe, in which the slags were melted down; the other was a Fe rod installed at the center of the crucible. The melting of the slags was done in a Kryptol furnace. The temperature of the slags was measured by means of a Pt-PtRh thermocouple. The studies were made on factory slags obtained in a Leninogorsk semi-industrial electric furnace. The quantities of the basic components in the slags varied as follows: ZnO 10-16%, FeO 25-29%, SiO₂ 27-43%, CaO 8-16%, Al₂O₃ 5-11%. The Si content was 1.5-2.5%, Pb content 0.6-4.0%, Cu content 0.3-1.1%. The electrical conductivity of the slags was measured within the temperature range 900-1350°. The curves showing the dependence of

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137-1958-2-2349

The Electrical Conductivity of Slags (cont.)

the electrical conductivity on the temperature were approximately parallel up to 1100°. At lower temperatures the electrical conductivity of the slags varied considerably (especially at 900°), which was caused, apparently, not so much by their chemical composition as by their mineralogical composition. It was found that the electrical conductivity of the slags increased as the temperature rose. On the curves showing the dependence of the electrical conductivity on the temperature two breaks occurred at temperatures of the order of 1150 and 1000°; this was accounted for by the fact that the slags crystallized. It was found that the curve segments conformed to the exponential relationship $K = Ae^{-QRT}$, wherein the constant A has different values. The electrical conductivity of the slags at relatively high temperatures (of the order of 1300-1350°) did not depend greatly on their composition and fell within the range 0.3-0.9 mho/cm. The data obtained concerning the electrical conductivity of slags resulting from the electrosmelting of lead confirmed that the conductivity of the slags was ionic in character. The study of the electrical conductivity of the slags without regard to the viscosity factor made it impossible to substantiate fully any selection of optimum slag compositions.

Card 2/2

I.P.

1. Slags--Conductivity
2. Electrodes--Applications
3. Electric bridges--Applications

PLATONOV, G.F.; VERSHININA, V.V.

Methods of determining the specific resistance of slags. Trudy
Alt. GMNII AN Kazakh. SSR no.7:193-198 '58. (MIRA 12:7)
(Slag—Electric properties)

VERSHININA, V.V., inzh.

Characteristics and conditions of swelling vitrophyres from
Semeystau deposits. Stroi.mat. 5 no.3:15-16 Mr '59.
(MIRA 12:5)
(Porphyry)

VERSHININA, V. V., inzh.

Clay shale from Eastern Kazakhstan as raw material for producing
lightweight aggregates. Stroi. mat. 6 no.10:37 0 '60.

(MIRA 13:10)

(Kazakhstan--Shale) (Aggregates (Building materials))

VERSHININA, V.V.

VERSHININA, V.V.

Electric conductivity of slags formed by the electric smelting of
lead agglomerates. Trudy Alt. OMNII AN Kazakh. SSR 4:89-95 '57.
(Lead—Electrometallurgy) (Slag—Electric properties) (MIRA 11:1)

PROSVIRIN, V. I., Dr.; ZUDIN, I. F.; VERSHINSKAYA, A. D., Engineer

Mbr., TnNIITMASH (Central Scientific-Research Institute of Technology and Machine Bldg.)
(-1945-)

Candidate in Technical Sciences

"Cast Nitrogenous Steel Cutter," Stanki I Instrument, 16, No. 3, 1945

IR-52059019

VERSHININA, V.V.

Effect of the degree of acidity on the viscosity and electrical conductivity of slags from the electric smelting of lead. Trudy Alt. GOMII Al Kazakh. SSR 6:165-174 '58. (MIRA 12:1)
(Lead--Electrometallurgy) (Slag--Testing)

PRUSOV, M.A.; VERSHINKIN, A.V.

Device for measuring electric quantity, energy, and arcing time.
Sam.elektr. no.1:70-78 '60. (MIRA 14:3)
(Electronic instruments)

VERSHINKIN, A. V.

PLACE 1 BOOK EXPEDITION 307/414

Soviet Electric Equipment: Collection of Articles, No. 1 (Air
Force Electric Equipment). Collection of Articles, No. 1.
Moscow, October, 1960. 100 p. Errata slip inserted.
3,000 copies printed.

General Ed.: A. P. Fedorov, Candidate of Technical Sciences;
Ed. of Publishing House: K. T. Orlitskii; Tech. Ed.: V. P.
Borodkin; Managing Ed.: A. S. Zaytsevskii, Engineer.

REMARKS: This book is intended for engineers engaged in designing and operating aircraft electric equipment. It may also be of interest to those working in the electrical industry, and to teachers, instructors and students in electrical engineering schools of higher and secondary education.

CONTENTS: The book is a collection of 9 articles dealing with problems in designing, calculating and operating aircraft electric equipment, and electric motors, regulators, instruments, etc. The articles: Heat-resistant coatings and
Posner, A. V. and T. I. Bulgakova. A Method for Constructing an Articulate Control System With Almost Optimal Transient Conditions 63
Kudryavtsev, M. I. and A. V. Ternovskii. Instrument for Measuring the Quantity of Electricity. Energy and Averaging Period 70
Gorodil'skaya, A. I. and Dr. R. F. Bain. Experience Gained in the Use of Chemical Hardening 79
Savchenko, A. D. and S. P. Shapov. Use of Epoxide Resins as Sealing and Impregnating Compounds 83
Tsvetkov, S. S. and A. P. Vaynshteyn. Determination of Maximum Allowable Operational Temperatures for Glass Textures 89
AVAILABILITY: Library of Congress
Card 3/3

10-18-60

ISAYEV, S.I.; DRYAGINA, I.V.; VERSHINKINA, I.M.

Effect of chronic irradiation with Co^{60} on the growth of the
gladiolus plant and the formation of the vegetative progeny.
Dokl. AN SSSR 135 no.5:1250-1253 D '60. (MIRA 13:12)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova, Pred-
stavлено академиком N.V.TSitsinym.
(PLANTS; EFFECT OF GAMMA RAYS ON)
(BULBS (BOTANY)) (GLADIOLUS)

ZOREV, N.N., doktor tekhn.nauk; TASHLITSKIY, N.I., kand.tekhn.nauk;
KUCHMA, L.K., kand.tekhn.nauk; VERSHINSKAYA, A.D., inzh.;
OVUMYAN, G.G., inzh.; ISAYEV, A.I., doktor tekhn.nauk; KIRILLOVA,
O.M., kand.tekhn.nauk; KATSEL'SON, V.Yu., inzh.; LAPIN, N.A.,
kand.tekhn.nauk; FEDOROV, N.M., inzh.; CHERMYY, A.P., inzh.;
MOROZOV, N.A., inzh.; DOGAK, N.S.; ANDREEV, G.S., kand.tekhn.nauk;
MIKHAYLENOK, Ye.I., kand.tekhn.nauk; MAKAROVICH, B.K., kand.tekhn.
nauk; YEREMIN, N.I., kand.tekhn.nauk; YERMOLOV, I.M.; inzh.;
UNKSOV, Ye.P., doktor tekhn.nauk, prof., red.; SOBOLEVA, O.N.,
red.izd-va; CHERNOVA, Z.I., tekhn.red.

[Engineering problems in the manufacture of heavy machinery]
Nekotorye voprosy tekhnologii tiazhologo mashinostroenija. Moskva,
Gos.nauchno-tekhn.izd-vo mashinostroitel'noi lit-ry. Pt. 2 [Metal
cutting and quality control of parts] Otrabotka metallov rezaniem
i kontrol' kachestva detalei. 1960. 173 p. (Moscow. TSentral'nyi
nauchno-issledovatel'skii institut tekhnologii i mashinostroenija.
[Trudy], vol.99). (MIRA 13:8)

(Machinery industry)
(Metal cutting)
(Quality control)

VERGUNSKAYA, A. D.

PHASE I BOOK EXPLOITATION SOV/5581

17

Moscow. Dom nauchno-tehnicheskoy propagandy.

Vysokoproizvoditel'nyy rezhushchiy instrument [sbornik] (Highly Productive Cutting Tools; Collection of Articles) Moscow, Mashgiz, 1961. 354 p. Errata slip inserted. 10,000 copies printed.

Sponsoring Agency: Obshchestvo po rasprostraneniyu politicheskikh i nauchnykh znanii RSFSR. Moskovskiy dom nauchno-tehnicheskoy propagandy imeni F. E. Dzerzhinskogo.

Ed. (Title page): N. S. Degtyarenko, Candidate of Technical Sciences; Ed. of Publishing House: I. I. Lesnichenko; Tech. Ed.: Z. I. Chernova; Managing Ed. for Literature on Cold Treatment of Metals and Machine-Tool Making: V. V. Rzhavinskiy, Engineer.

PURPOSE : This collection of articles is intended for technical personnel of machine, instrument, and tool plants.

Card 1/6.

17
Highly Productive Cutting Tools (Cont.)

SOV/5581

COVERAGE: The collection contains information on the following: new brands of high-speed steels and hard alloys; designs of built-up tools and tools for the machining of holes; tools for machining heat-resisting and light-metal alloys and plastics; tools for unit-head machines and automatic production lines; and methods for the sharpening and maintenance of carbide-tipped tools. No personalities are mentioned. There are 56 references, mostly Soviet. References accompany some of the articles.

TABLE OF CONTENTS:

Foreword 3

I. NEW BRANDS OF HIGH-SPEED STEELS AND HEAD ALLOYS

Geller, Yu. A. (Doctor of Technical Sciences, Professor). Highly Productive High-Speed Steels 7

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Highly Productive Cutting Tools (Cont.)

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III. TOOLS FOR MACHINING HEAT-RESISTING
AND LIGHT-METAL ALLOYS AND PLASTICS

Vershinskaya, A. D. [Engineer]. Drilling of Titanium and Heat-
Resisting Alloys

135

Andreyev, G. S. [Candidate of Technical Sciences]. Reaming of
Heat-Resisting Alloys

154

Yerokhin, A. A. [Candidate of Technical Sciences]. Shank-Type
Tools for Machining Holes in Light-Metal Alloys

171

Yegorov, S. V. Cutting Tools for Machining Plastics

180

IV. TOOLS FOR UNIT-HEAD MACHINES AND
FOR AUTOMATIC PRODUCTION LINES

Kushner, Z. Yu. Tools for Machining Holes on Unit-Head Machines
and on Automatic Production Lines

197

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31224

S/123/61/000/020/017/035
A004/A101

14000

AUTHOR: Vershinskaya, A. D.

TITLE: Drilling of titanium and heat-resistant alloys

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 20, 1961, 51-52,
abstract 20B296 (v sb. "Vysokoproizvodit. rezhushchiy instrument",
Moscow, Mashgiz, 1961, 135-153)

TEXT: The author investigated the drilling process of the BT2 (VT2) and
BT5 (VT5) titanium alloys and the 1X189T (1Kh189T) austenitic steel grade,
delivered in the form of forgings 60 x 30 mm in cross section and 300 mm long.
The durability relationships of other titanium and heat-resistant alloys were
determined. It was found that, to increase the vibration proofness, shortened
drills should be used whose length of the spiral part should not exceed 5 - 6
D_{drill}. If long drills are used, it is recommended to sharpen them with a beat
of the cutting edges of up to 0.2 μ . It is expedient to use rigidity bushes.
The surface finish of the chip-deflecting flute should not be lower than class 8.
Drills of more than 10 mm in diameter should have a double grinding with the
following geometry: $2\varphi = 140^\circ$ and $2\varphi_0 = 70^\circ$. For the drilling of heat-

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A004/A101

Drilling of titanium and heat-resistant alloys

resistant steels and alloys checkered chip-breaking flutes should be cut on the back surfaces of the drill. The back angles at the drill periphery should be $12 - 14^\circ$ for heat-resisting steels and $16 - 18^\circ$ for titanium alloys. The transverse edge is sharpened. Drilling should be carried out with ample cooling. With dry drilling the cutting conditions decrease by a factor of 2, while the drill speed during sinking work is reduced by 15%. Blanks from heat-resistant alloys have to be drilled either prior to their heat treatment or after annealing. There are 21 figures and 5 tables.

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B. Bozin

[Abstracter's note: Complete translation]

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VERSHINSKAYA, A.D., inzh.

Designing thread cutters to be used in the machining of heat-resistant steels. Energomashinostroenie 4 no.7:36-37 J1 '58.
(Metal-cutting tools) (MIRA 11:10)

VERBAL SUMMARY, 1962

PHASE I BOOK EXPLOITATION

SOV/4804

Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya
Nekotoryye voprosy tekhnologii tyazhelogo mashinostroyeniya, chast' 2: Obrabotka
metallov rezaniyem i kontrol' kachestva detalej (Some Problems in the Manufac-
turing Processes of Heavy Machinery, Pt. 2: Metal Cutting and Quality Control
of Parts) Moscow, Mashgiz, 1960. 173 p. (Series: Its: [Trudy] kn. 99)
2,500 copies printed.

Sponsoring Agencies: Gosudarstvennyy komitet Soveta Ministrov SSSR po avtomati-
zatsii i mashinostroyeniyu; Tsentral'nyy nauchno-issledovatel'skiy institut
tekhnologii i mashinostroyeniya.

Ed.: Ye.P. Unksov, Doctor of Technical Sciences, Professor; Managing Ed. for
Literature on Heavy Machine Building: S.Ya. Golovin, Engineer; Ed. of Publish-
ing House: G.N. Soboleva; Tech. Ed.: Z.I. Chernova.

PURPOSE: This book is intended for technical personnel in heavy-machinery plants
and for scientific workers in factory laboratories and research institutes.

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Some Problems (Cont.)

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COVERAGE: The book contains a summary of work conducted by the personnel of TaNIITMASH in the field of mechanical machining and quality control of parts. Included is a discussion on the correct combination of depth, feed, and speed in cutting with maximum capacity of the machine tool. Also considered are the development of machining methods in rough and semifinishing production, and the application of ultrasonic devices for flaw detection and measurement of wall thickness. No personalities are mentioned. References follow some of the chapters.

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PART I. WORKING OF METALS BY CUTTING

Ch. I. Some Results of [Research] Work in the Field of Mechanics of the Metal-Cutting Process [Zorev, N.N., Doctor of Technical Sciences]	7
Ch. II. Development of Efficient Cutting Regimes, and Methods of Improving the Usefulness of Operation of Machine Tools in Heavy-Machine Plants [Zorev, N.N., N.I. Tashlitskiy and L.K. Kuchma, Candidates of Technical Sciences; A.D. Vershinskaya and G.G. Ovumyan, Engineers]	31

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Some Problems (Cont.)

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Ch. III. The Development and Search for New Tool Materials [Zorev, N.N. and A.I. Isayev, Doctor of Technical Sciences; L.K. Kuchma and O.M. Kirillova, Candidates of Technical Sciences; V.Yu. Katsnel'son, Engineer]

59

Ch. IV. New Designs of Cutting Tools for the Heavy-Machinery [Industry] [Lapin, N.A., Candidate of Technical Sciences; A.D. Vershinskaya, N.M. Fedorov, A.P. Chernyy, Engineers]

70

Ch. V. Basic Trends and Some Results of Investigations of the Machined Surface Layer [Isayev, A.I., N.A. Morozov, N.M. Fedorov, Engineers]

88

Ch. VI. Some Results of Work on the Improvement of Manufacturing Processes in the Heavy-Machinery Industry [Isayev, A.I., N.S. Dogak, Engineer; G.S. Andreyev, Ye.N. Mikhaylenok, B.K. Makarevich, Candidates of Technical Sciences]

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PART II. QUALITY CONTROL OF PARTS

Ch. I. Magnetic Flaw Detection in Striving for Quality of Metal [Yeremin, N.I., Candidate of Technical Sciences]

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Some Problems (Cont.)

SOV/4804

Ch. II. Ultrasonic Flaw Detection and Measurement of [Wall] Thickness
of Products [Yermolov, I.N., Engineer]

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AVAILABLE: Library of Congress

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VK/wrc/sfm
2/23/61

S/020/60/135/005/040/043
B016/B052

AUTHORS: Isayev, S. I., Dryagina, I. V. and Vershinkina, I. M.

TITLE: Influence of Chronical Exposure to Co^{60} Radiation on the
Growth of Gladiolus and the Development of Vegetative
Descendants

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 5,
pp. 1250-1253

TEXT: The authors report on their experiments on the chronical exposure
of Gladiolus plants (species: "Sommerfreude", and "Vincent Van Gogh") to
the radiation of Co^{60} . They studied the influence on growth and vegetative
propagation. The cobalt radiation source was in the γ -field of the
Vsesoyuznyy institut udobreniy i agropochvovedeniya (All-Union Fertilizer
and Soil Science Institute) of the VASKhNIL (Vsesoyuznaya akademiya
sel'skokhozyaystvennykh nauk im. V. I. Lenina, All-Union Academy of
Agricultural Sciences imeni V. I. Lenin). In 1959, young bulbs were planted
at a distance of 2.85-30 m from the cobalt source (highest dose: 28301 r)
(lowest dose: 347 r). The control plants received only 4.6 r during the whole
period of vegetation. These experiments showed Gladiolus to be highly

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Influence of Chronical Exposure to Co^{60}
Radiation on the Growth of Gladiolus
and the Development of Vegetative
Descendants

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resistant toward ionizing radiation, and within four months it withstands radiation of higher intensity than that applied to the bulbs before planting. Only the development of vegetative descendants is considerably inhibited. The effect on growth germinative faculty, size of the developing bulbs, and photosynthesis was not uniform. The photosynthesis of irradiated plants was not inhibited. Among the plants exposed to strong radiation there were some individuals with high radiation resistance and propagation coefficients. The authors mention the Agrobiological Station of Moscow State University at Chashnikovo. There are 5 tables and 2 Soviet references.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

PRESENTED: June 24, 1960, by N. V. Tsitsin, Academician

SUBMITTED: June 21, 1960

Card 2/2

VERSHINSKAYA, A.D., inzhener; KERZHENOV, G.S., kandidat tehnicheskikh nauk.

Machining stellite surface machine parts. (Trudy) TSVINTYAST
no.82:82-99 '57. (USA 10:7)
(Metal cutting) (Stellite)

USSR/ Engineering - Machining metals

Card 1/1 Pub. 128 - 10/35

Authors : Vershinskaya, A. D., Engineer; and Andreyev, G. S., Cand. Tech. Sc.

Title : Grinding and milling stellite

Periodical : Vest. mash. 35/3, 31 - 35, Mar 1955

Abstract : The problems in shaping cutting tools made of stellite due to the extreme hardness of this material are discussed. Directions are given for preparing the stellite blanks. The types of carbide tungsten composing the tool used in machining stellite are indicated, as well as the slow operation and shallow cut to be followed in machining and grinding. Two USSR references (1941-1948). Illustrations; graphs; tables.

Institution :

Submitted :

B-41722-65 EMT(m)/EWP(t)/EWP(k)/EWP(b) Pf-4 JD
ACCESSION NR: AP5010857

UR/C286/65/000/007/0032 050

AUTHOR: Vershinskaya, A. D.

TITLE: A method for improving the ability of students to be creative
and to find a solution to a problem

SOURCE: Byulleten' izobreteniy i tehnologii, No. 7, 1965, 30

FIELD: Education

ABSTRACT: THIS AUTHOR CERTIFIES PRESENTS A METHOD FOR IMPROVING THE ABILITY OF STUDENTS

TO FIND A
SOLUTION

A. D. VERSHINSKAYA

APR 17 1965

33468

18.1247 1454 1521 1418

S/129/62/000/001/011/011
E193/E383

AUTHORS: Lozinskiy, M.G., Doctor of Technical Sciences,
Bernshteyn, M.L., Candidate of Technical Sciences
and Vershinskaya, T.V., Engineer

TITLE: Polygonization of molybdenum studied by high-
temperature metallographic methods

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov,
no. 1, 1962, 57 - 64

TEXT: Owing to the resultant formation of fine inhomogeneities of the structure and increase in the recrystallization temperature, polygonization of metals brings about an improvement in the mechanical properties, both at room and elevated temperatures. This is particularly important in the case of Mo, which is mainly used in high-temperature applications and, consequently, it is important to establish heat- and mechanical-treatment procedures which would ensure polygonization of this metal and its alloys. Hence the present investigation, in which high-temperature metallographic methods such as described,

X

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Polygonization of

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E193/E383

for instance, in Ref. 6 (M.G. Lozinskiy and N.Z. Pertsovskiy - Izv. AN SSSR, OTN, seriya Metallurgiya i toplivo, no. 1, 1961) were used. Experiments were conducted on vacuum-melted Mo containing small additions of Ti and Zr which constituted a solid solution and in which no solid transformation of any kind took place. The cast ingots were first hot-forged and then hot-rolled to 3.5 mm thickness, after which the material was annealed at 1 500 °C for one hour. Part of the annealed strip was rolled at 600 °C to 5, 7, 9 and 13% reduction in thickness and specimens of both annealed and work-hardened alloys were used for taking hardness measurements at 1 050, 1 100 and 1 150 °C. In the other series of experiments, electrolytically polished test pieces of annealed material were extended in vacuum at a constant rate of strain at 1 050 and 1 150 °C and after attaining elongation of 3, 6 and 13% were maintained under a load, photomicrographs of the surface of the test pieces being taken at various stages of this treatment. X-ray diffraction analysis was also carried out on test pieces stressed at elevated temperatures. The results obtained can be summarized as

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Polygonization of

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follows.

1) Hot hardness of the alloys studied increases with increasing degree of preliminary plastic deformation but the longer the loading time used during the hardness measurements, the lower is the value of hardness obtained. This is illustrated in Fig. 2, where the Vickers hardness (HV) of various specimens is plotted against the loading time (min), the degree of preliminary plastic deformation (%) being indicated on each graph; experimental points denoted by circles, triangles and dots relate, respectively, to test temperatures of 1 050, 1 100 and 1 150 °C. It will be seen that an anomalous increase takes place in specimens preliminarily rolled to 9% reduction and that the hardness of specimens deformed to 13% reduction is higher at 1 150 °C than at 1 050 °C or 1 100 °C.

2) The increase in hardness with rising temperature is relatively small in specimens deformed to 5 and 7% reduction and large in more heavily deformed material, this increase being particularly pronounced in specimens given 9% reduction, which indicates that this treatment brings about polygonization

Card 3175

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Polygonization of

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E193/E383

of the alloy. In Fig. 3 the decrease in hardness (ΔH , kg/mm^2) is plotted against the test temperature, the degree of preliminary deformation being indicated by each curve.

3) The microhardness of the alloy at high temperature also varies with loading time. This is demonstrated in Fig. 4,

where the microhardness (H_V , kg/mm^2) is plotted against the loading time at 1 050 (graph a) and 1 150 $^{\circ}\text{C}$ (graph b), the degree of preliminary deformation being shown by each curve. It will be seen that the microhardness of all work-hardened specimens tested at 1 050 $^{\circ}\text{C}$ decreases monotonically with increasing loading time; the curves for specimens given 9 and 13% reduction and tested at 1 150 $^{\circ}\text{C}$ show a maximum at 30 and 80 min, respectively. The maximum increase in microhardness with increasing loading times is shown by a specimen deformed to 9% reduction and tested at 1 150 $^{\circ}\text{C}$.

4) The results of X-ray diffraction analysis show that fragmentation of blocks in the course of plastic deformation is a characteristic feature of Mo and that the degree of

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Polygonization of

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5/129/62/000/001/011/011
E193/E583

fragmentation can be assessed from the increase in the width of the X-ray lines. In Fig. 6, the increase in the width ($\beta 10^{-3}$ radians) of the (211) lines is plotted against the degree of deformation at temperatures indicated by each curve. It will be seen that a maximum degree of polygonization is attained in the material extended to 9% elongation at 1 150 °C. If, however, a specimen in this condition is held under a load at 1 150 °C for 80 min, the X-ray reflections become more diffuse, indicating that this treatment brings about an increase in the dimensions of blocks.

There are 8 figures and 10 references: 9 Soviet-bloc and 1 non-Soviet-bloc. The English-language reference mentioned is: Ref. 4: Cahn, R.W. - Proc. Phys. Soc., A63, 1950.

ASSOCIATIONS: Institut mashinovedeniya GKAMSM SSSR
(Institute of Machine Science of GKAMSM USSR)
Moskovskiy institut stali (Moscow Institute
of Steel)

X

Card 5/75-

LOZINSKIY, M.G., doktor tekhn.nauk; BERNSHTEYN, M.L., kand.tekhn.nauk;
VERSHINSKAYA, T.V., inzh.

Investigating the polygonization of molybdenum by high temperature
metallography. Metalloved. i term. obr. met. no.1:57-64 Ja '62.

1. Institut mashinovedeniya Gosudarstvennogo komiteta Soveta
Ministrov SSSR po avtomatizatsii i mashinostroyeniyu i Moskovskiy
institut stali.
(Molybdenum--Metallography) (Dislocations in metals)

VERSHINSKAYA, V. F.

USSR/Physics - Vibration
Damping

Jan 50

155T93
"Determination of the Frequency and Damping Coefficient According to the Absorption Band," V. K. Arkad'yev, V. F. Vershinskaya, Dept of Physicomath Sci, Acad Sci USSR, 6 pp

"Zhur Eksper i Teoret Fiz" Vol XX, No 1, 1948-53

Gives curves and interpolational formulas for calculation of the natural frequencies ω_0 and damping of centers, theta (dimensions of friction), in the interval 10.001 to $1,000$ of theta, or for band width of half its height from 0.00436 to 11.4 decibels.

155T93

USSR/Physics - Vibration (Contd)

Jan 50

Demonstrates transition of the resonance band to a viscosity band for theta greater than 10. Submitted 14 Jul 49.

155T93

VERSHINSKAYA, V.F.

PHASE I BOOK EXPLOITATION 811

Akademiya nauk SSSR

Sbornik posvyashchenny pamyati Akademika P.P. Lazareva (Collection of Articles in Memory of Academician P.P. Lazarev) Moscow, Izd-vo AN SSSR, 1956. 374 p. 1,600 copies printed.

Resp. Ed.: Shuleykin, V.V., Academician; Editorial Board: Shuleykin, V.V., Academician, Deryagin, B.V., Corresponding Member, Academy of Sciences, USSR, Frank, G.M., Corresponding Member, Academy of Medical Sciences, USSR, Volarovich, M.P., Professor, Yefimov, V.V., Professor, Maslov, N.M., Kuzin, A.M., Professor; Ed. of Publishing House: Kuznetsova, Ye.B.; Tech. Ed.: Shevchenko, G.N.

PURPOSE: This compilation of articles is published in honor of P.P. Lazarev.

COVERAGE: The collection consists of three parts; the first group of articles deals with general physics, the second with biophysics and physiology, the third with geophysics. In the Table of Contents, the date on which the article was received follows each title.

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65

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AVAILABLE: Library of Congress

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Card 6/6

VERSHINSKIY, A., inzh.-podpolkovnik, kand.tekhn.nauk; KONDRAT'YEV, L.,
inzh.-podpolkovnik, kand.tekhn.nauk

Autonomous navigation in a space flight, Av.i kosm. 46 no.7:
20-25 Jl '63. (MIRA 16:8)
(Navigation (Astronautics))

ACC NR: AP6028538

SOURCE CODE: UR/0280/66/000/003/0088/0093

AUTHOR: Vershinskiy, A. V. (Moscow)

ORG: none

TITLE: Some methods for increasing the efficiency of information processing systems

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 3, 1966, 88-93

TOPIC TACS: least square method, information theory, statistic solution, information processing system, reliability analysis, closed automatic control system, open automatic control system

ABSTRACT: The article contains a study of the possibility of using statistical hypothesis verification methods for failure detection and for better efficiency in test systems (involving individual instrumentation components), by means of techniques involving a comparison of the signals of the monitored facilities with signal values obtained as a result of smoothing and extrapolation. A solution regarding outage is reached on the basis of an analysis of the statistical hypotheses which define the relation between the magnitude of the deviation and the state of the system. Should this deviation fall within a critical zone the test instrument in question is considered to have failed and is disconnected from the composite system. Activities involving the disconnection of a specific device from the system and its reconnection are optimized through minimization of mean losses, expressed as reliability and

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ACC NR: AP6028538

accuracy functions and making allowance for the specific nature of the problem which the facility is called upon to solve. The problems are solved using methods of the statistical solution theory and the least square method. Orig. art. has: 8 formulas.

SUB CODE: 09,12/ SUBM DATE: 22Dec64/ ORIG REF: 005/ OTH REF: 001

Card 2/2

VERSHINSKIY, B.V.

Principles underlying the mapping of the distribution of
ixodid ticks, carriers of human diseases. Dokl. Inst. geog.
Sib. i Dal'. Vost. no.3:37-42 '63.

(MIRA 18:12)

IGNAT'YEV, Ye.I., otv. red.; SHOGIN, A.A., red.: BYAKOV, V.P.,
red.; VERSHINIKOV, B.V., red.; YAKOVLEV, A.V., red.;
KHLEBOVICH, I.A., red.

[Medical geography; results and prospects] Meditsinskaia
geografija; itogi, perspektivy. Irkutsk, 1964. 208 p.
(MIRA 17.7)

l. Akademija nauk SSSR. Sibirskoye otdeleniye. Institut
geografii Sibiri i Dal'nego Vostoka.

VERSHINSKIY, B.V.; BALAGANOV, V.Ya.

Focus of taiga encephalitis and the dynamics of vegetation
cover. Dokl. Inst. geog. Sib. i Dal'. Vost. no.1:58-67 '62.
(MIRA 17:8)

USSR/Zooparasitology. Parasitic Protozoa

G

Abs Jour : Ref Zhur-Biol., No 13, 1958, 57866

Author : Vershinsky B. V.

Inst : Not given

Title : Experiment of Infection of Golden Hamsters with
Trichomonas vaginalis Donne, 1836

Orig Pub : Zool. zh., 1957, 36, No 11, 1774-1776

Abstract : After a check for the absence of spontaneous invasion by trichomonads, nonbacterial culture of Trichomonas vaginalis (about 30,000 parasites to a single infection) were placed in the vaginas of the hamsters. Seventeen of 22 animals became infected. The invasion continued for periods ranging from 2 weeks to several months. No pathological modifications of the mucus of the vaginas were noted.

Card 1/1

3

BALAGANOV, V.Ya.; VERSHINSKIY, B.V.; REYMERS, N.F.

Dynamics of the biological units of the Verkhobanskiy taiga. Sib.
geog. sbor. no.3:134-170 '64. (MIRA 18:3)

VERSHINSKIY, B.V.

Geographical aspects of studying natural focus diseases in central
Siberia. Sib. geog. sbor. no.3:171-197 '64.

(MIRA 18:3)

VERSHINSKIY, B.V.

Pathogenicity of *Trichomonas vaginalis* donne, 1836 [with summary in English]. Akush. i gin. 34 no.4:76-80 Jl-4g '58 (MIRA 11:9)

1. Iz kafedry obshchey biologii i parazitologii imeni akad. Ye.N. Pavlovskogo (nach. - prof. V.G. Gnedilov) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova.
(*TRICHOMONAS*,
vaginalis, pathogenicity in mice (Rus))

Verzhinsky, B.V.

Experimental infection of golden hamsters by Trichomonas vaginalis
Donne, 1836 [with summary in English] Zool. zhur. 36 no.11:1774-
1776 N '57. (MLRA 10:11)

1. Kafedra obshchey biologii i parazitologii im. akad. Ye.N.
Pavlovskogo Voyenno-meditsinskoy ordena Lenina akademii im. S.M.
Kirova (Leningrad).
(Trichomonas) (Parasites--Hamsters)

ROZOVSKIY, V. (g. Saratov); VERSHINSKIY, G. (g. Khar'kov); KUKLIN, G.
(g. Kirov)

Readers' letters. Izobr.i rats. no.4:31 Ap '62. (MIRA 15:4)
(Technological innovations)

~~VERSHINSKIY, N.~~ kandidat tekhnicheskikh nauk.

Wire data transmitters are metallic nerves in contemporary machines.
Tekh. mol. 25 no.3:35 Mr '57. (MIRA 10:6)
(Electric instruments)

VERSHINSKIY, N.V.

Marine electronics. Trudy Inst. okean. 74:3-12 '65.

The EDV-1 electrodynamograph. Ibid.:17-20

(MIRA 18:12)

VERSHINSKIY, N.V.; MIKHAYLOVA, O.N.

Use of vibratory systems for determining water density.
Trudy Inst. okean. 74:13-16 '65.

(MIRA 18:12)

VERSHINSKIY, N.V.; BOROVIKOV, P.A.

Calculation of stations with automatically variable depth.
Trudy Inst. okean. 74:85-89 '65. (MIRA 18:12)

VERSHINSKIY, N. V.

USSR/Geophysics - Oceanology
Hydraulics

11 Aug 50

"Recording of Fluctuations in Velocity Vector
of Fluids," N. V. Vershinsky, Inst Oceanol,
Acad Sci USSR

"Dok Ak Nauk SSSR" Vol LXXXII, No 5, pp 941-943
Classical hydrometry with vanes or Pitot tubes,
cannot record rapid fluctuations because of in-
ertia. Hydrodynamic force on immobile sphere
can be considered single-valued function of
fluid's velocity for certain Re numbers; thus,
author built pulsation recorder consisting of

175T23

11 Aug 50

USSR/Geophysics - Oceanology
(Contd)

sphere, 2 pairs of vanes, pair of resistance
bridges, a-f oscillator, 2 amplifiers, 2 recti-
fiers, and cathode-ray tube for showing veloc-
ity vector, (wave processes, turbulence, etc.).
Submitted 14 Jun 50 by Acad P. P. Shirshov.

175T23

VERSHINSKIY, N.V.

USSR/Physics - Oscillograph, Electronic May/Jun 51
"Electron-Ray Commutator for the Electronic Oscillograph," N. V. Vershinsky. Inst of Automatics and
Telemech, Acad Sci USSR

"Avtomat i Telemech" Vol XII, No 3, pp 216-230

Considers a new method for simultaneously recording curves with the aid of a single-ray cathode oscillograph and special electronic commutator. Shows that during use of the electronic commutator for simultaneous recording it is necessary to take into consideration the design peculiarities and parameters of the selected type of commutator and also the time of

219761

establishment of commutated amplifiers. Proceeding from the condition governing the absence of fogging of oscillograms, the author derives computational formulas for individual elements of commutator scheme. Submitted 28 Feb 49 and again 6 Mar 51.

219761

1. Vershinskiy N.V.
2. USSR (600)
4. Hydrodynamics
7. Physics of sea waves. Tekh. molod. 20 no.12, 1952.

9. Monthly List of Russian Accessions. Library of Congress, March 1953, Unclassified.

VERSHINSKIY, N. V.

"Problem of the Gravitational Factors in the Shore Zone," DAN SSSR, Vol 87, No 5, pp 732-6, Dec 52.

In 1949 the author, A. A. Depreys, and A. P. Kestner designed a new device for investigating gravitational oscillations of a fluid; and in 1951 the author noted that such device could be set in two different regimes where the deviations of its mobile system are close in phase to the oscillations of the wave velocity or to the oscillations of the wave acceleration; in the latter case the device records the hydrodynamic force, which was not taken into account earlier. The study of this force is of great interest in investigations of the dynamic processes occurring in the coastal zone of seas and reservoirs, since up till now only two forces, frictional forces and forces associated with resistance of form, have been considered. The work described was begun in 1949 on the suggestion of Prof. V. P. Zenkovich, who gave constant attention to the work. Submitted by Acad. V. V. Shuleykin 10 Oct 1952.

25470

VERSHINSKIY, N.V.

Present electrical apparatuses for investigating swell. Trudy
Inst. okean. 10:192-202 '54. (MLRA 7:11)

1. Institut okeanologii Akademii nauk SSSR.
(Hydrodynamics)

VERSHINSKIY, N.V.; KESTNER, A.P.

Nearshore electrical wave-measuring instrument. Trudy Okean.kom.
1:126-133 '56. (MLRA 10:2)

1. Institut okeanologii AN SSSR.
(Waves) (Oceanographic research)

VERSHINSKIY, N.V.; MARAKUYEV, V.I.

Underwater television apparatus. Trudy Inst.okean. 19:312-
318 '56. (MLRA 10:2)

(Television) (Oceanographic research)

VERSHINSKIY, N., kandidat tekhnicheskikh nauk.

Deep-sea television. Tekh.mol.24 no.1/2:51-53 Ja-7 '56.
(MIRA 9:7)

1.Zaveduyushchiy laboratoriyy morskoy elektroniki Instituta
oceanologii Akademii nauk SSSR.
(Television cameras)

USSR/Zooparasitology. Parasitic Worms

G

Abs Jour : Ref Zhur-Biol., No 13, 1958, 57874

Author : Turlygina Ye. S. and Vershinskiy N. V.

Inst : Not given

Title : Application of an Electric Current for the
Destruction of Nematodes in the Soil

Orig Pub : Priroda, 1957, No 8, 97-98

Abstract : Soil infected with Root-knot nematodes was placed in glass tubes, at the ends of which were placed electrodes from tin foil connected with high frequency alternate current. The period of soil processing lasted from fractions of a second to several seconds. After the soil was processed cucumber seeds were planted; the plants were grown for a period of 1 month; they were tested for infection by root-knot nematodes.

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USSR/Zooparasitology. Parasitic Worms

G

Abs Jour : Ref Zhur-Biol., No 13, 1958, 57874

Abstract : The plants were only slightly infected when an electrical gradient of 30 to 100 v/cm was applied; with an electrical gradient of 500 to 600 v/cm there was no infection. Since the soil was practically not heated, the death of the larvae was ascribed to the electotraumatic action of the high tension current.

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5

VERSHINSKII, N.V., kandidat tekhnicheskikh nauk.

All-around vision in submarine television. Priroda 46 no.1:81-84
Ja '57. (MLRA 10:2)

1. Institut okeanologii Akademii nauk SSSR, Moskva.
(Television cameras) (Submarine photography)

VERSHINSKIY, N.V.

TURLYGINA, Ye.S.; VERSHINSKIY, N.V., kand. tekhn. nauk,

The use of electric current for killing nematodes in the soil.
Priroda 46 no.8:97-98 Ag '57. (MLRA 10:9)

1. Gel'mintologicheskaya laboratoriya Akademii nauk SSSR, Moskva
(for Turlygina). 2. Institut okeanologii Akademii nauk SSSR, Moskva
(for Vershinsky).

(Agricultural pests) (Electricity in agriculture).

VERSHINSKIY, N.V.

Method for controlling ship worms of the family Teredinidae by
electric current. Biul. Okean. kom. no.1:60-63 '58. (MIRA 11:9)

1. Institut okeanologii AN SSSR.
(Shipworms)

VERSHINSKIY, V. V.
TURLYGINA, Ye.S.; VERSHINSKIY, N.V.

Experimental data on the effect of a commercial frequency high-tension electric current on the gall nematode [with summary in English]. Biofizika 3 no.1:116-118 '58. (MIRA 11:2)

1. Gel'mintologicheskaya laboratoriya AN SSSR, Moskva.
(NMMATODA) (SOIL DISINFECTION)
(ELECTRICITY IN AGRICULTURE)

VERSHINSKIY, N.V.

Improved submerged television units. Biul. tekhn.-tekhn. inform.
no. 8:57-58 '58. (MIR 11:10)
(Television--Transmitters and transmission)

VERSHINSKIY, N.V.

Instrument for checking the rate of filling of trawl nets with
fish. Biul.tekh.-ekon.inform. no.9:53-54 '58. (MIRA 11:10)
(Trawls and trawling) (Ultrasonic waves--Industrial applications)

PHASE I BOOK EXPLOITATION

SOV/5268

Vershinskiy, Nikolay Vsevolodovich

Podvodnoye televideniye (Underwater Television) Moscow, Gosenergoizdat, 1960. 223 p. 8,000 copies printed.

Ed.: V. I. Arkhangel'skiy; Tech. Ed.: K. P. Voronin

PURPOSE: This book is intended for the general reader.

COVERAGE: The author discusses basic problems of the theory and techniques of underwater television and analyzes prospects of developing this field of electronics in the near future. The material of the book is based on the experience gained in the Laboratory of Marine Electronics of the Institute okeanologii Akademii Nauk SSSR (Institute of Oceanology, Academy of Sciences, USSR). It is claimed that this book is one of the first attempts to make a systematically arranged presentation of the various problems of underwater television. The author thanks the following for their help: V. G. Bogorov, Scientific Supervisor of the Institute of Oceanology and Corresponding Member of the Academy of Sciences USSR;

Card 1/7

Underwater Television

SOV/5268

V. I. Marakuyev and V. P. Nikolayev, staff members of the Laboratory of Marine Electronics; and Ye. M. Ponomarev, B. V. Krusser, N. L. Artem'yeva, V. B. Veynberg, I. N. Denisyuk, M. V. Kozlyaninov, Ye. I. Gagentorn, A. D. Dobrovolskiy, S. A. Yel'yashkevich, and M. N. Bulkhurgin. References to each chapter are listed separately in the Bibliography. There are 99 references: 63 Soviet (including 3 translations), 28 English, 2 French, and 6 German.

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L 36070-66 EWT(1) GW
ACC NR: AT6017044

(N)

SOURCE CODE: UR/2566/65/074/000/0013/0016

AUTHOR: Vershinskiy, N. V.; Mikhaylova, O. N.

ORG: none *

36
B+1

TITLE: Use of vibratory systems for measuring water density Q M

SOURCE: *AN SSSR. Institut okeanologii. Trudy, v. 74, 1965. Elektronnye pribory dlya okeanologicheskikh issledovaniy (Electronic instruments for oceanological research), 13-16

17

18

TOPIC TAGS: electric vibrator, fluid density measurement, fluid density

ABSTRACT: Vibrating densitometers for the direct measurement of fluid are compared. A number of vibrators are compared with respect to their possible use as densitometers for the direct measurement of fluid density and the results of the comparison are presented in tabular form. Low frequency electromechanical vibrators were not found suitable since their density measurement accuracy does not exceed 10^{-2} g/cm²; moreover, the immersion of these vibrators in liquids decreases their Q values because of friction loss due to viscosity. While a piezoelectric vibrator with a frequency of several hundred cps had the required sensitivity, it cannot be used in salt water since it is made of materials subject to corrosive action. Tests on cup-like piezoelectric measuring cells showed these to perform satisfactorily in fresh and salt water and other liquids

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when acoustic loss was taken into account. Frequency data based on various test cell configurations in water are tabulated. Orig. art. has: 2 figures, 1 table, 2 formulas.

SUB CODE: 09,14/ SUBM DATE: none/ ORIG REF: 001/ OTH REF: .001

Card 2/2 vmb

L 40019-66 EWT(1) GW

ACC NR: AT6017045

(N)

SOURCE CODE: UR/2566/65/074/000/0017/0020

AUTHOR: Vershinskiy, N. V.

ORG: none

TITLE: EDV-1 electrodynamographSOURCE: ~~AN SSSR. Institut okeanologii. Trudy, v. 74, 1965. Elektronnyye pribory dlya okeanologicheskikh issledovaniy (Electronic instruments for oceanological research), 17-20~~TOPIC TAGS: oceanographic instrument, electric measuring instrument, pressure measuring instrument, ocean dynamics / EDV-1 electrodynamograph

ABSTRACT: An instrument for measuring the pressure of ocean waves is described. The instrument is reported to have been used with good results for the past ten years at the Sochi Hydrological Station. Wave pressure is measured by a sensitive elastic coil which deforms upon the action of a wave stroke. This coil deformation is sensed by a wire-wound pickup and registered by the dynamograph. The electrodynamograph consists of two 200 ohm wire-wound resistors, potential bridge, three-stage amplifier, magnetic demodulator oscilloscope and self-exciting generator. A schematic diagram of the device is shown. The dynamograph can operate with 110 v, 127 v, or 220 v of alternating current supply. The frequency of the generator is 1000 cps and the natural frequency

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